AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A method for dynamically determining the power compression point of an amplifier in a distributed network under the control of a computer, the network having a first terminal including the amplifier, the first terminal being operatively coupled to a plurality of second terminals by a communication channel, said method comprising:

generating bit error rate (BER) messages indicative of measured BER for a signal transmitted at N power levels, each of said BER messages including ~~a tag~~ data indicative of a power level among the N power levels corresponding to the measured BER in the each of said BER messages, at the second terminals; and

reducing the maximum allowed power of the amplifier when it is determined that the amplifier is approaching saturation responsive to the generated BER messages.

2. (previously presented): The method as recited in claim 1, wherein N is an integer greater than 2, and wherein said reducing the maximum allowed power comprises:

determining an average BER responsive to said generated BER messages;

determining a BER slope responsive to said determined average BER; and

reducing the maximum allowed power when the BER slope is indicative of a lower slope at higher power levels.

3. (original): The method as recited in claim 1, wherein the signal is a control burst.

4. (previously presented): The method as recited in claim 3, wherein the control burst is transmitted at the N power levels in N sequential frames, and wherein N is an integer greater than or equal to 2.

5. (currently amended): A method for dynamically determining the power compression point of an amplifier in a distributed network under the control of a computer, the network having a first terminal including the amplifier, the terminal being operatively coupled to a plurality of second terminals by a communication channel, said method comprising:

(1) transmitting a signal at N power levels to the second terminals, where N is a positive integer;

(2) measuring a bit error rate (BER) for the signal at each of said N power levels at the second terminals;

(3) generating BER messages for the signal at each of said N power levels, each of said BER messages including the measured BER and ~~a tag~~ data indicative of a power level among said N power levels corresponding to the measured BER in the each of said BER messages;

(4) transmitting the BER messages to the computer; and

(5) when it is determined that the amplifier is approaching saturation from the BER messages, reducing the maximum allowed power of the amplifier.

6. (original): The method as recited in claim 5, wherein the signal is a control burst, and wherein the communications channel comprises a satellite.

7. (previously presented): The method as recited in claim 6, wherein the control burst is transmitted at N power levels in N sequential frames, and wherein N is an integer greater than or equal to 2.

8. (previously presented): The method as recited in claim 5, wherein said reducing the maximum allows power further comprises :

(5) (i) determining an average BER responsive to said generated BER messages;

(5) (ii) determining a BER slope responsive to said determined average BER; and

(5) (iii) reducing the maximum allowed power when the BER slope is indicative of a lower slope at higher power levels.

9. (previously presented): The method as recited in claim 5, wherein said reducing the maximum allows power further comprises:

(5) (i) determining an average BER responsive to said generated BER messages;

(5) (ii) determining a BER slope responsive to said determed average BER; and

(5) (iii) evaluating the BER slope with respect to a reference power-BER data stored in the computer; and

(5) (iv) reducing the maximum allowed power when the determined BER slope and said reference power-BER data diverge to thereby indicate a lower slope at higher power levels.

10. (currently amended): A method for dynamic uplink power control for an amplifier in a distributed network under the control of a computer, the network having a first terminal

including the amplifier, the first terminal being operatively coupled to a plurality of second terminals by a communication channel, said method comprising:

examining a plurality of control burst bit error rate (CB BER) measurement reports, respectively corresponding to a signal transmitted at N power levels, each of said CB BER measurement reports including data indicative of a power level among the N power levels to which it corresponds;

computing an average CB BER responsive to said examined plurality of the CB BER measurement reports;

when said computed average CB BER is greater than said predetermined BER threshold, increasing a power level of the amplifier; and

when said computed average CB BER is less than a predetermined BER threshold, decreasing the power level of the amplifier.

11. (previously presented): The method as recited in claim 10, further comprising:

determining whether the power level of the amplifier is greater than a predetermined maximum power level; and

when the power level is greater than said predetermined maximum power level, varying at least one characteristic of a signal carried by the communications channel so as to reduce the BER.

12. (previously presented): The method as recited in claim 10, further comprising:

determining whether the power level of the amplifier is greater than a predetermined maximum power level; and

when the power level is greater than said predetermined maximum power level, establishing binary phase shift keying (BPSK) as a signal modulation technique to modulate the signal transmitted at the N power levels; and

when the power level is less than said predetermined maximum power level, establishing quadrature phase shift keying (QPSK) as the signal modulation technique to modulate the signal transmitted at the N power levels.

13. (previously presented): The method as recited in claim 12, wherein said determining step is performed following said increasing the power level of the amplifier.

14. (currently amended): A method for dynamic uplink power control for an amplifier in a distributed network under the control of a computer, the network having a first terminal including the amplifier, the first terminal being operatively coupled to a plurality of second terminals by a communication channel, said method comprising:

examining a plurality of control burst bit error rate (CB BER) measurement reports, respectively corresponding to a signal transmitted at N power levels, each of said CB BER measurement reports including data indicative of a power level among the N power levels to which it corresponds;

computing an average CB BER responsive to said examined plurality of the CB BER measurement reports;

comparing said computed average CB BER with a predetermined BER threshold;

when said computed average CB BER is greater than said predetermined BER threshold, increasing a power level of the amplifier; and

when said average CB BER is less than said predetermined BER threshold, decreasing the power level of the amplifier.

15. (previously presented): The method as recited in claim 14, further comprising:

determining whether the power level of the amplifier is greater than a predetermined maximum power level; and

when it is determined that the power level is greater than said predetermined maximum power level, varying at least one characteristic of a signal carried by the communications channel so as to reduce the BER.

16. (previously presented): The method as recited in claim 14, further comprising:

determining whether the power level of the amplifier is greater than a predetermined maximum power level; and

when the power level is greater than said predetermined maximum power level, establishing binary phase shift keying (BPSK) as a signal modulation technique to modulate the signal transmitted at the N power levels; and when the power level is less than said predetermined maximum power level, establishing quadrature phase shift keying (QPSK) as the signal modulation technique to modulate the signal transmitted at the N power levels.

17. (previously presented): The method as recited in claim 16, wherein said determining step is performed following said increasing the power level of the amp.

18. (previously presented): The method as recited in claim 14, further comprising:

determining up and down power values U and D, respectively, based on the computed average BER and a target BER; and wherein:

said increasing the power level comprises increasing power level of the amplifier by U dB;

said decreasing the power level comprises decreasing the power level of the amplifier by D dB; and

U and D are real numbers stored in a database of the computer.

19. (previously presented): The method as recited in claim 5, wherein the transmitting the signal at the N power levels further comprises:

transmitting a first plurality of signals at a high power level H;

transmitting a second plurality of signals at a medium power level M; and

transmitting a third plurality of signals at a low power level L.

20. (previously presented): The method as recited in claim 19, wherein H = P1 -h (dB), M = P1 - m (dB), and L = P1 - l (dB),

wherein P1 is a 1 dB compression of the amplifier, h = 1 dB, m = 2 dB; and l = 3 dB, and

wherein the maximum allowed power of the amplifier is H.

21. (new): The method as recited in claim 1, wherein the signal is transmitted at the N power levels prior to the reducing the maximum allowed power of the amplifier.

22. (new): The method as recited in claim 5, wherein the signal is transmitted at the N power levels prior to the reducing the maximum allowed power of the amplifier.

23. (new): The method as recited in claim 10, wherein the signal is transmitted at the N power levels prior to at least the increasing the power level of the amplifier.

24. (new): The method as recited in claim 14, wherein the signal is transmitted at the N power levels prior to at least the decreasing the power level of the amplifier.